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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
SINGH, RAMNANDAN P	
ART UNIT	PAPER NUMBER
2614	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/752,167	MILLER, MERLE L.	
	Examiner	Art Unit	
	Ramnandan Singh	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 December 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3 and 7-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3, 7-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

`DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 13-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 13 recites (i) "A line card, comprising: a subscriber line interface circuit", and (ii) "receiving a voice signal…; delivering a ringing signal…; receiving at least…; providing…". The part (i) is an apparatus claim, and part (ii) is a method claim. It is unclear whether the applicant is claim an apparatus or method. Claims 14-17 being dependent from claim 13 are also rejected.

Further, claim 14 recites the limitation "the subscriber line integrated circuit" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 7-13, 18-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Moyal et al [US 5,809,109].

Regarding claim 9, Moyal et al disclose an apparatus, as shown in Fig. 4, comprising:

a feedback path having an input and output terminal (18, 20), the feedback path including an analog-to-digital converter (110) for processing voice signals (Vin) [Fig. 4; col. 3, lines 19-38] ;

a switch (105) for coupling the input and output terminal of the feedback path in response to receiving a control signal (i.e. ring command) [Fig. 4; col. 3, lines 11-18]; and

a ringing generator (202) for providing a ringing signal to a subscriber line in response to the control signal [Fig. 4; col. 3, line 47-63; col. 4, line 39 to col. 5, line 2].

Regarding claim 22, Moyal et al disclose an apparatus, as shown in Fig. 4, comprising:

means (SLAC 4) for processing a signal received over a subscriber line by one or more components in a first path [SLIC 2], the first path having an input terminal (18) and an output terminal (20) [Fig. 4];

means (DSP 120) for receiving a control signal (Ring command);

means (switch 105) for coupling the input and the output terminal of the first path in response to receiving the control signal [Fig. 4; col. 4, line 51 to col. 5, line 2]; and

means (ring generator 202) for providing a ringing signal to the subscriber line responsive to the control signal [Fig. 4; col. 2, line 41 to col. 5, line 20].

Claim 19 is essentially similar to claim 22 and is rejected for the reasons stated above a propos of claim 22.

Regarding claim 18, Moyal et al disclose an apparatus, as shown in Fig. 4, comprising:

means (DSP 120) for using an analog-to-digital converter for processing voice signals [Fig. 4; col. 3, lines 19-39];

means (DSP 120) for using the analog-to-digital converter for DC feed control signal [Fig. 4; col. Col. 3, lines 40-45; col. 4, line 8-20; col. 5, lines 31-50];

means (DSP 120) for receiving a ringing control (Ring command) [Fig. 4];

means (ringing generator 202) for transmitting a ringing signal to a subscriber line in response to the ringing control signal [Fig. 4; col. 2, line 41 to col. 5, line 20; col. 3, lines 11-18];

means (A/D converter 110) for receiving a portion of the ringing signal from the subscriber line [col. 2, lines 47-64];

means (A/D converter 110) for converting the portion of the ringing signal to a digital signal using the analog-to-digital converter(110) [Fig. 4];

and

means (DSP 120) for providing a ring-trip indication in response to the digital signal [Fig. 4; col. 2, lines 57-64; col. 3, lines 40-45; col. 6, lines 24-32].

Claims 13, 1 and 7 are essentially similar to claim 18 and are rejected for the reasons stated above.

Regarding claim 2, Moyal et al further disclose the method , wherein the ringing signal comprises an AC signal [col. 2, lines 57-64].

Regarding claim 3, Moyal et al further disclose the method, including terminating the ringing signal in response to the ring-trip indication [col. 3, lines 19-35].

Claim 8 is essentially simila r to claim 3 and is rejected for the reasons staed above.

Regarding claim 23, Moyal et al further disclose the method, comprising using the analog-to-digital converter (110) for DC control [Fig. 4].

Regarding claims 10-12, 20-21 and 24, the limitations are shown above.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moyal et al as applied to claim 13 above, and further in view of Anderson et al [US 6,728,370 B1].

Regarding claim 14, Moyal et al do not teach expressly using an integrated subscriber line. However, it is well-known in the art.

Anderson et al teach using a subscriber line integrated circuit , wherein the voltage subscriber line interface circuit (515) [Fig. 5; col. 5, lines 45-62].

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Anderson et al with Moyal et al to provide an alternative embodiment of the SLIC of Moyal et al to reduce a production cost and compact signal process using the SLIC [Anderson et al; col. 5, lines 45-54].

Regarding claim 15, Anderson et al further teach a line card (integrated SLIC) , wherein the subscriber line interface circuit is for receiving a data signal in a frequency band above voice signals [Fig. 1; col. 3, 54-59].

Regarding claim 17, the combination of Moyal et al and Anderson et al teaches the method , wherein the ringing signal comprises an AC signal [Moyal et al; col. 2, lines 57-64].

Response to Arguments

7. Applicant's arguments filed on Dec 18, 2007 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Vaclavik et al [6,094,480] using an integrated SLIC for ring trip detection [col. 3, lines 41-47].

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramnandan Singh whose telephone number is (571) 272-7529. The examiner can normally be reached on M-TH (8:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on (571) 272-7547. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an

application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ Ramnandan Singh/
Primary Examiner,
Art Unit 2614